U.S. Application No.: 10/784,879

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

## LISTING OF CLAIMS:

1. (currently amended): A support for a lithographic printing plate obtained by performing graining treatment including electrochemical graining treatment on an aluminum plate,

wherein said aluminum plate is an aluminum plate which is manufactured by a method including molten metal treatment, and contains Fe of 0.20 to 0.29 wt%, Si of 0.03 to 0.15 wt%, Cu of 0.020 0.032 to 0.040 wt% and Ti of 0.050 wt% or less and whose remaining portion is composed of Al and unavoidable impurities,

and wherein surface area ratio and steepness obtained from three-dimensional data by measuring  $512 \times 512$  points in 5  $\mu$ m  $\times$  5  $\mu$ m on the surface with an atomic force microscope each satisfies the following conditions (i) to (vi):

- (i) Surface surface area ratio  $\Delta S^5$  is 30 to 70%;
- (ii) Surface surface area ratio  $\Delta S^{5(0.2-5)}$  is 10 to 30%;
- (iii) Surface surface area ratio  $\Delta S^{5(0.02-0.2)}$  is 30 to 70%;
- (iv) Steepness steepness a455 is 20 to 50%;
- (v) Steepness-steepness a45<sup>5(0.2-5)</sup> is 5 to 20%; and
- (vi) Steepness steepness a45<sup>5(0.02-0.2)</sup> is 20 to 60%,

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wherein  $\Delta S^5$  which is found by the following equation from actual area  $S_x^5$  found by <u>an</u> approximation three-point method from said three-dimensional data and geometrically measured area  $S_0^5$  is surface area ratio expressed by  $\Delta S^5 = [(S_x^5 - S_0^5) / S_0^5] \times 100 (\%)$ ;

 $\Delta S^{5(0.2-5)}$  which is found by the following equation from actual area  $S_x^{5(0.2-5)}$  obtained by extracting a component with wavelength of 0.2  $\mu$ m or longer and 5  $\mu$ m or shorter from said three-dimensional data and geometrically measured area  $S_0^5$  is surface area ratio expressed by  $\Delta S^{5(0.2-5)} = \left[ \left( S_x^{5(0.2-5)} - S_0^5 \right) / S_0^5 \right] \times 100 \, (\%);$ 

 $\Delta S^{5(0.02-0.2)}$  which is found by the following equation from actual area  $S_x^{5(0.02-0.2)}$  obtained by extracting a component with wavelength of 0.02  $\mu m$  or longer and 0.2  $\mu m$  or shorter from said three-dimensional data and geometrically measured area  $S_0^5$  is surface area ratio expressed by  $\Delta S^{5(0.02-0.2)} = \left[ \left( S_x^{5(0.02-0.2)} - S_0^5 \right) / S_0^5 \right] \times 100 \, (\%);$ 

steepness  $a45^5$  is an area rate of a portion (area) having a slant with size of angle of  $45^\circ$  or bigger (gradient of  $45^\circ$  or bigger) to actual area  $S_x^5$  found by <u>an</u> approximation three-point method from said three-dimensional data;

steepness a45 $^{5(0.2-5)}$  is an area rate of a portion (area) having a slant with size of angle of 45° or bigger (gradient of 45° or bigger) to actual area  $S_x^{5(0.2-5)}$  found by extracting a component with wavelength of 0.2  $\mu$ m or longer and 5  $\mu$ m or shorter from said three-dimensional data; and

steepness a45 $^{5(0.02-0.2)}$  is an area rate of a portion (area) having a slant with size of angle of 45° or bigger (gradient of 45° or bigger) to actual area  $S_x^{5(0.02-0.2)}$  found by extracting a component with wavelength of 0.02  $\mu$ m or longer and 0.2  $\mu$ m or shorter from said three-dimensional data.

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2. (currently amended): A support for a lithographic printing plate obtained by performing graining treatment including electrochemical graining treatment on an aluminum plate,

wherein said aluminum plate is an aluminum plate which is manufactured by a method including molten metal treatment, and contains Fe of 0.20 to 0.29 wt%, Si of 0.03 to 0.15 wt%, Cu of 0.020 0.032 to 0.040 wt% and Ti of 0.050 wt% or less and whose remaining portion is composed of Al and unavoidable impurities,

and wherein surface area ratio and steepness obtained from three-dimensional data by measuring  $512 \times 512$  points in  $50 \ \mu m \times 50 \ \mu m$  on the surface with an atomic force microscope each satisfies the following conditions (xi) to (xvi):

- (xi) Surface surface area ratio  $\Delta S^{50}$  is 30 to 70%;
- (xii) Surface surface area ratio  $\Delta S^{50(2-50)}$  is 5 to 10%;
- (xiii) Surface surface area ratio  $\Delta S^{50(0.2-2)}$  is 15 to 40%;
- (iv) Steepness steepness a4550 is 25 to 60%;
- (xv) Steepness-steepness a45 $^{50(2-50)}$  is 0 to 3.0%; and
- (xvi) Steepness a45<sup>50(0.2-2)</sup> is 10 to 40%,

wherein  $\Delta S^{50}$  which is found by the following equation from actual area  $S_x^{50}$  found by <u>an</u> approximation three-point method from said three-dimensional data and geometrically measured area  $S_0^{50}$  is surface area ratio expressed by  $\Delta S^{50} = [(S_x^{50} - S_0^{50}) / S_0^{50}] \times 100 \, (\%);$ 

 $\Delta S^{50(2-50)}$  which is found by the following equation from actual area  $S_x^{50(2-50)}$  obtained by extracting a component with wavelength of 2 µm or longer and 50 µm or shorter from said threedimensional data and geometrically measured area  ${\rm S_0}^{50}$  is surface area ratio expressed by  $\Delta {\rm S}^{50(2-)}$  $^{50)} = [(S_x^{50(2-50)} - S_0^{50}) / S_0^{50}] \times 100 (\%);$ 

 $\Delta S^{50(0.2-2)}$  which is found by the following equation from actual area  $S_x^{50(0.2-2)}$  obtained by extracting a component with wavelength of 0.2 µm or longer and 2 µm or shorter from said three-dimensional data and geometrically measured area  $S_0^{50}$  is surface area ratio expressed by  $\Delta S^{50(0.2-2)} = [(S_x^{50(0.2-2)} - S_0^{50}) / S_0^{50}] \times 100 (\%);$ 

steepness a45<sup>50</sup> is an area rate of a portion (area) having a slant with size of angle of 45° or bigger (gradient of 45° or bigger) to actual area S<sub>x</sub><sup>50</sup> found by <u>an approximation three-point</u> method from said three-dimensional data;

steepness a45<sup>50(2-50)</sup> is an area rate of a portion (area) having a slant with size of angle of 45° or bigger (gradient of 45° or bigger) to actual area  $S_x^{50(2-50)}$  found by extracting a component with wavelength of 2  $\mu m$  or longer and 50  $\mu m$  or shorter from said three-dimensional data; and

steepness a45<sup>50(0.2-2)</sup> is the area rate of a portion (area) having a slant with size of angle of 45° or bigger (gradient of 45° or bigger) to actual area  $S_x^{50(0.2-2)}$  found by extracting a component with wavelength of 0.2  $\mu m$  or longer and 2  $\mu m$  or shorter from said three-dimensional data.

(original): The support for a lithographic printing plate according to claim 1, 3. wherein the number of local deep areas with a depth of 5  $\mu m$  or more existent on the surface is 1.0 or less per 400  $\mu$ m  $\times$  400  $\mu$ m.

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- 4. (original): The support for a lithographic printing plate according to claim 2, wherein the number of local deep areas with a depth of 5  $\mu$ m or more existent on the surface is 1.0 or less per 400  $\mu$ m  $\times$  400  $\mu$ m.
- 5. (original): The support for a lithographic printing plate according to claim 1, wherein Si atom attached quantity on the surface is 0.1 to 30 mg/m<sup>2</sup>.
- 6. (original): The support for a lithographic printing plate according to claim 2, wherein Si atom attached quantity on the surface is 0.1 to 30 mg/m<sup>2</sup>.
- 7. (original): The support for a lithographic printing plate according to claim 3, wherein Si atom attached quantity on the surface is 0.1 to 30 mg/m<sup>2</sup>.
- 8. (original): A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 1.
- 9. (original): A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 2.
- 10. (original): A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 3.

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11. (original): A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 4.

- 12. (original): A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 5.
- 13. (original): A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 6.
- 14. (original): A presensitized plate provided with an image recording layer on the support for a lithographic printing plate according to claim 7.
- 15. (currently amended): The presensitized plate according to claim 8, wherein the presensitized plate is a presensitized plate for a laser printing plate.
- 16. (currently amended): The presensitized plate according to claim 9, wherein the presensitized plate is a presensitized plate for a laser printing plate.
- 17. (currently amended): The presensitized plate according to claim 10, wherein the presensitized plate is a presensitized plate for a laser printing plate.

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18. (currently amended): The presensitized plate according to claim 11, wherein the presensitized plate is a presensitized plate for a laser printing plate.

- 19. (currently amended): The presensitized plate according to claim 12, wherein the presensitized plate is a presensitized plate for a laser printing plate.
- 20. (currently amended): The presensitized plate according to claim 13, wherein the presensitized plate is a presensitized plate for a laser printing plate.
- 21. (currently amended): The presensitized plate according to claim 14, wherein the presensitized plate is a presensitized plate for a laser printing plate.